AMENDMENTS TO THE CLAIMS

1. Canceled.

2. (Currently Amended) A network element in accordance with claim ~~1~~ 24, wherein said input circuit comprises:

a pointer determining circuit coupled to said switch circuit and configured to provide a pointer identification for each time slot occupied by ~~of~~ said ~~plurality of~~ concatenated optical signal frames, ~~time slots,~~ said output circuit outputting said plurality of concatenated ~~time slots~~ optical signal frames in accordance with said pointer identification ~~for each of said plurality of time slots~~.

3. (Currently Amended) A network element in accordance with claim ~~1~~ 2, further comprising:

a memory coupled to said pointer determining circuit, said memory containing information identifying said time slots occupied by said ~~plurality of~~ concatenated optical signal frames ~~time slots~~, said pointer determining circuit determining said pointer identification based on said information.

4. (Currently Amended) A network element in accordance with claim 3, wherein ~~said plurality of time slots are grouped in frames, each of said frames including N time slots, where N is an integer~~ said memory ~~comprising~~ comprises:

a first submemory having N storage locations, selected storage locations in said first ~~memory~~ submemory being configured to store identification information associated

with a first one of said ~~plurality of concatenated~~ time slots occupied by said concatenated optical signal frames in said ~~sequence~~ sequential placement of said first plurality of N time slots; and

a second submemory having N storage locations, selected storage locations in said second ~~memory~~ submemory being configured to store identification information associated with subsequent ones of said occupied ~~plurality of concatenated~~ time slots following said first one in said sequential placement of said first plurality of N time slots ~~sequence~~.

5. (Currently Amended) A network element in accordance with ~~1~~ claim 23, wherein said switch circuit further comprises:

a first switch stage coupled to said input circuit; and

a second switch stage coupled to said output circuit.

6. (Currently Amended) A network element in accordance with claim 2, further comprising:

an additional pointer determining circuit coupled to said output circuit, and configured to determine said pointer identification within each time slot occupied by ~~of~~ said ~~plurality of~~ concatenated ~~time slots~~ optical signal frames, said output circuit outputting said ~~plurality of~~ concatenated ~~time slots~~ optical signal frames in accordance with said pointer identification within each of said occupied ~~plurality of~~ time slots; and

an additional memory coupled to said output circuit, said additional memory being configured to store said information identifying said time slots occupied by said ~~plurality of~~ concatenated ~~time slots~~ optical signal frames, said additional pointer determining circuit detecting said pointer location based on said information.

7. (Currently Amended) A network element in accordance with claim 6, wherein ~~said plurality of time slots are grouped in frames, each of said frames including N time slots, where N is an integer,~~ said additional memory ~~comprising~~ comprises:

a first submemory having N storage locations, selected storage locations in said first ~~memory~~ submemory being configured to store identification information associated with a first one of said time slots occupied by said ~~plurality of~~ concatenated optical signal fames ~~time slots~~ in said sequential placement of said first plurality of N time slots; ~~sequence~~ and

a second submemory having N storage locations, selected storage locations in said second memory being configured to store identification information associated with subsequent ones of said occupied ~~plurality of concatenated~~ time slots following said first one in said sequential placement of said first plurality of N time slots ~~sequence~~.

8. (Currently Amended) A network element in accordance with claim 6, wherein said output circuit further comprises a plurality of buffer circuits, each of said buffer

circuits being configured to store a respective one of said ~~plurality of~~ concatenated optical signal frames ~~time slots~~, said buffer circuits outputting said ~~plurality of~~ concatenated optical signal frames ~~time slots~~ in a synchronized manner in response to said pointer identification.

9. (Original) A network element in accordance with claim 8, wherein each of said plurality of buffer circuits comprises a first-in-first-out (FIFO) buffer.

10. (Currently Amended) A network element in accordance with claim ~~1~~ 23, wherein said ~~plurality of~~ concatenated optical signal frames ~~time slots~~ constitute at least one OC-3c.

11. (Currently Amended) A network element in accordance with claim ~~1~~ 23, wherein said plurality of concatenated optical signal frames ~~time slots~~ constitute at least one OC-12c.

12. (Currently Amended) A network element in accordance with claim ~~1~~ 23 wherein at least one of said first and second pluralities ~~said plurality~~ of N optical signal frames ~~signals~~ are transmitted at an OC-48 rate.

13. Canceled.

14. (Currently Amended) A method in accordance with claim ~~13~~ 28, further comprising the step identifying said

occupied ~~plurality of concatenated~~ time slots in said first plurality of N time slots.

15. (Currently Amended) A method in accordance with claim 14, further comprising the step of storing information corresponding to said identified ~~plurality of concatenated~~ time slots in a memory.

16. (Currently Amended) A method in accordance with claim 15, wherein said determining step is performed based on information corresponding to said identified ~~plurality of concatenated~~ time slots.

17. (Currently Amended) A method in claim ~~13~~ 28 wherein said outputting step further comprises the step of synchronizing said ~~plurality of~~ concatenated optical signal frames ~~time slots~~ based on said pointer of each of said occupied ~~plurality of concatenated~~ time slots.

18. (Currently Amended) A method in accordance with claim 13, wherein said ~~plurality of~~ concatenated optical signal frames ~~time slots~~ constitutes at least one OC-3c.

19. (Currently Amended) A method in accordance with claim 13, wherein said ~~plurality of~~ concatenated optical signal frames ~~time slots~~ constitutes at least one OC-12c.

20. (Currently Amended) A method in accordance with claim ~~13~~ 28, further comprising the steps of:

storing first identification information associated with a first one of said occupied ~~plurality of concatenated~~ time slots in said sequential placement of said first plurality of N time slots ~~sequence~~ in a first memory; and

storing, in a second memory, second identification information associated with selected ones of said occupied ~~plurality of concatenated~~ time slots following said first one of said occupied ~~plurality of concatenated~~ time slots in said ~~sequence~~ sequential placement of said first plurality of N time slots.

21. (Currently Amended) A method in accordance with claim 20, wherein said determining step is based on said first and second identification information.

22. Canceled.

23. (New) A network element comprising:

an input circuit configured to receive a first plurality of N optical signal frames (N being an integer ≥ 0) conforming to a synchronous optical network standard, said first plurality of optical signal frames being grouped into a first plurality of N time slots, at least two of said first plurality of optical signal frames being concatenated to carry a payload;

a switch circuit coupled to said input circuit, said switch circuit being configured to receive data corresponding to said payload; and

an output circuit coupled to said switch circuit, said output circuit being configured to output a second

plurality of N optical signal frames conforming to said synchronous optical network standard in response to said first plurality of optical signal frames, said second plurality of time slots being grouped into a second plurality of N time slots,

wherein a sequential placement of time slots occupied by said concatenated optical signal frames within at least one of said first and second pluralities of N time slots does not conform to said synchronous optical network standard.

B5 Int.

24. (New) A network element in accordance with claim 23, wherein

the sequential placement of time slots occupied by said concatenated signal frames within said first plurality of N times slots does not conform to said synchronous optical network standard, and

said output circuit is configured to transmit said data in conformance with said synchronous optical network protocol.

25. (New) A network element according to claim 23, wherein said synchronous optical network standard is SONET/SDH.

26. (New) A network including one or more of said network elements in accordance with claim 23.

27. (New) A switching method comprising:

supplying a first plurality of N optical signal frames (N being an integer ≥ 0) conforming to a synchronous optical

network (synchronous optical network) standard, said first plurality of optical signal frames being grouped into a first plurality of N time slots, at least two of said first plurality of optical signal frames being concatenated to carry a payload;

determining a pointer for each time slot occupied by said concatenated optical signal frames; and

outputting said concatenated optical signal frames in accordance with said pointers for said occupied time slots, said concatenated optical signal frames being output in a second plurality of N optical signal frames, said second plurality of N optical signal frames being grouped in a second plurality of N time slots,

wherein a sequential placement of the time slots occupied by said concatenated optical signal frames within said plurality of N time slots does not conform to said synchronous optical network standard

28. (New) A method in accordance with claim 27, wherein the sequential placement of time slots occupied by said concatenated signal frames within said first plurality of N times slots does not conform to said synchronous optical network standard.

29. (New) A method in accordance with claim 27 wherein said synchronous optical network standard is SONET/SDH.

30. (New) A network element comprising:

a switch configured to receive a first plurality of N optical signal frames (N being an integer ≥ 0) conforming to

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a synchronous optical network (synchronous optical network) standard, said first plurality of optical signal frames being grouped into a plurality of N time slots, at least two of said first plurality of optical signal frames being concatenated to carry a payload, wherein a sequential placement of the time slots occupied by said concatenated optical signal frames within said plurality of N time slots does not conform to said synchronous optical network standard, said switch being further configured to output a second plurality of N optical signal frames in response to said first plurality of optical signal frames in order to transmit said data in conformance with said synchronous optical network protocol.